



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2013-0212; Directorate Identifier 2012-NM-116-AD; Amendment 39-17509; AD 2013-14-04]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Airbus Model A330-223F, -223, -321, -322, and -323 airplanes. This AD was prompted by fatigue load analysis that determined that the inspection interval for certain pylon bolts must be reduced. This AD requires a torque check of forward engine mount bolts, and replacement if necessary. We are issuing this AD to detect and correct loose or broken bolts, which could lead to engine detachment in-flight, and damage to the airplane.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com); Internet <http://www.airbus.com>.

**FOR FURTHER INFORMATION CONTACT:** Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1138; fax (425) 227-1149.

#### **SUPPLEMENTARY INFORMATION:**

##### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to the specified products. The NPRM was published in the Federal Register on March 28, 2013 (78 FR 18925). The NPRM proposed to correct an unsafe condition for the specified products.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2012-0094, dated May 31, 2012 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition

for the specified products. The MCAI states:

The forward mount engine pylon bolts, Part Number (P/N) 51U615, fitted on Airbus A330 aeroplanes with Pratt & Whitney (PW) PW4000 engines, are made from MP159 material.

The U.S. Federal Aviation Administration (FAA), as Engine Certification Authority, issued AD 2006-16-05 [Amendment 39-14705 (71 FR 44185, August 4, 2006)] to require (paragraph (g) of that AD) repetitive torque checks of MP159 material forward mount pylon bolts fitted on certain PW4000 series engines.

However, the engine mount system is considered to be part of aeroplane certification rather than the engine certification. Following further fatigue load analysis by Airbus of the A330 engine mount system, completed in February 2011 for both the freighter and passenger models of A330 aeroplanes, it was determined that MP159 material forward mount pylon bolts inspection interval must be reduced.

This condition, if not detected and corrected, could ultimately lead to engine detachment from the aeroplane, possibly resulting in damage to the aeroplane and/or injury to person on the ground.

For the reasons described above, this [EASA] AD requires accomplishment of repetitive torque checks of the forward mount pylon bolts installed on A330 aeroplanes powered by PW4000 engines and, depending on findings, the replacement of all four bolts and associated nuts.

Findings (discrepancies) include loose or broken bolts. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-0212-0002>.

## **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (78 FR 18925, March 28, 2013) or on the determination of the cost to the public.

## **Additional Changes Made to this AD**

We have combined tables 1, 2, and 3 to paragraph (g) of the NPRM (78 FR 18925, March 28, 2013) into one table, designated as table 1 to paragraph (g) in this final rule, and updated table references in this AD accordingly. These changes do not affect the requirements or intent of paragraph (g) of this AD.

## **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD with the changes described previously—except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (78 FR 18925, March 28, 2013) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (78 FR 18925, March 28, 2013).

## **Costs of Compliance**

We estimate that this AD will affect 41 products of U.S. registry. We also estimate that it will take about 2 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$6,970, or \$170 per product.

In addition, we estimate that any necessary follow-on actions would take about 1 work-hour and require parts costing \$6,747, for a cost of \$6,832 per product. We have no way of determining the number of products that may need these actions.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2013-0212>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section.

#### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

#### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new AD:

**2013-14-04 Airbus:** Amendment 39-17509. Docket No. FAA-2013-0212; Directorate Identifier 2012-NM-116-AD.

#### **(a) Effective Date**

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD affects AD 2006-16-05, Amendment 39-14705 (71 FR 44185, August 4, 2006).

#### **(c) Applicability**

This AD applies to Airbus Model A330-223F, -223, -321, -322, and -323 airplanes, certificated in any category, all manufacturer serial numbers.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 71, Powerplant.

**(e) Reason**

This AD was prompted by fatigue load analysis that determined that certain pylon bolts inspection interval must be reduced. We are issuing this AD to detect and correct loose or broken bolts, which could lead to engine detachment in-flight, and damage to the airplane.

**(f) Compliance**

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

**(g) Torque Check and Replacement**

(1) Within the compliance times specified in table 1 to paragraph (g) of this AD, as applicable to airplane model and utilization, do a torque check to determine if there are any loose or broken forward engine mount bolts (4 positions/engine) on both engines, and repeat that torque check at intervals not to exceed the values defined in table 1 to paragraph (g) of this AD, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-71-3028, Revision 01, dated February 20, 2012. For the purposes of table 1 to paragraph (g) of this AD, the average flight time (AFT) is defined as a computation of the number of flight hours divided by the number of flight cycles accumulated since last torque check or since the airplane's first flight, as applicable.



**Table 1 to Paragraph (g) of this AD**

<b>Airplane models</b>	<b>Flight cycles accumulated on the effective date of this AD since last torque check performed as specified in Pratt &amp; Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane first flight, as applicable</b>	<b>Compliance time</b>	<b>Torque check interval (not to exceed)</b>
For Model A330-223,-321, -322, and -323 airplanes with AFT more than 132 minutes	0 – 1,850	Within 2,350 flight cycles since the last torque check as specified in Pratt & Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane first flight, as applicable	2,350 flight cycles or 24,320 flight hours, whichever occurs first
For Model A330-223, -321, -322, and -323 airplanes with AFT more than 132 minutes	1,851 – 2,700	Within 500 flight cycles after the effective date of this AD without exceeding 2,700 flight cycles since last torque check as specified in Pratt & Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane first flight, as applicable; or within 3 months after the effective date of this AD; whichever occurs later	2,350 flight cycles or 24,320 flight hours, whichever occurs first
For Model A330-321,-322, and -323 airplanes with AFT equal or less than 132 minutes; and for Model	0 – 1,450	Within 1,950 flight cycles since the last torque check performed as specified in Pratt & Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane first flight, as applicable	1,950 flight cycles or 20,210 flight hours, whichever occurs first

<b>Airplane models</b>	<b>Flight cycles accumulated on the effective date of this AD since last torque check performed as specified in Pratt &amp; Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane first flight, as applicable</b>	<b>Compliance time</b>	<b>Torque check interval (not to exceed)</b>
A330-321, -322, and -323 airplanes on which the AFT is not calculated on a regular basis			
For Model A330-321, -322, and -323 airplanes with AFT equal or less than 132 minutes; and for Model A330-321, -322, and -323 airplanes on which the AFT is not calculated on a regular basis	1,451 – 2,700	Within 500 flight cycles after the effective date of this AD without exceeding 2,700 flight cycles since last torque check performed as specified in Pratt & Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane first flight, as applicable; or within 3 months after the effective date of this AD; whichever occurs later.	1,950 flight cycles or 20,210 flight hours, whichever occurs first
For Model A330-223F airplanes	Not applicable	Within 2,140 flight cycles or 6,600 flight hours, whichever occurs first since the last torque check performed as specified in Pratt & Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane first flight, as applicable	2,140 flight cycles or 6,600 flight hours, whichever occurs first

(2) If any loose or broken bolt is detected during the check required by paragraph (g)(1) of this AD, before further flight, replace all four forward engine mount bolts and associated nuts, on the engine where the loose or broken bolt was detected, with new bolts and nuts, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-71-3028, Revision 01, dated February 20, 2012.

(3) Replacement of bolts and nuts as required by paragraph (g)(2) of this AD is not terminating action for the repetitive torque checks required by paragraph (g)(1) of this AD.

**(h) Compliance with AD 2006-16-05, Amendment 39-14705 (71 FR 44185, August 4, 2006)**

Doing the actions required by paragraph (g) of this AD constitutes compliance with the requirements specified in paragraph (g) of AD 2006-16-05, Amendment 39-14705 (71 FR 44185, August 4, 2006).

**(i) Parts Installation Prohibition**

As of the effective date of this AD, no person may install any INCO718 material, forward mount pylon bolt having Pratt & Whitney part number 54T670 on any airplane.

**(j) Credit for Previous Actions**

This paragraph provides credit for the actions required by paragraphs (g)(1) and (g)(2) of this AD, if those actions were performed before the effective date of this AD using Airbus Mandatory Service Bulletin A330-71-3028, dated December 16, 2011, which is not incorporated by reference in this AD.

**(k) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Information may be emailed to: [9-ANM-116-AMOC-REQUESTS@faa.gov](mailto:9-ANM-116-AMOC-REQUESTS@faa.gov). Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(l) Related Information**

(1) Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2012-0094, dated May 31, 2012, for related information. You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov/#!documentDetail;D=FAA-2013-0212-0002>.

(2) Service information identified in this AD that is not incorporated by reference may be viewed at the addresses specified in paragraphs (m)(3) and (m)(4) of this AD.

**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Airbus Mandatory Service Bulletin A330-71-3028, Revision 01, dated February 20, 2012.

(ii) Reserved.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex,

France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com); Internet <http://www.airbus.com>.

(4) You may view copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on June 21, 2013.

Jeffrey E. Duven,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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